

BRIEFER ARTICLES

PREPARATION OF COPY

In response to many inquiries from contributors, the following directions for the preparation of copy for the *BOTANICAL GAZETTE* are published. If the directions are followed, most of the troubles of contributor and editor will be eliminated.

Preparation of text

Little need be said in reference to the effective method of presentation, selection of material, and style, for in these matters each contributor is a law unto himself. The difference between a clutter of details and a proper laying of emphasis should be recognized. Omitting the obvious is hard for beginners to learn, but they should keep in mind that the audience is made up of professional botanists.

The only practical direction that can be given, therefore, in reference to the preparation of text copy, concerns its form for publication, and this relates to two points. Before the text is prepared, the style of the *BOTANICAL GAZETTE* should be investigated. Each contributor can find some such paper as he proposes to publish, and should note at least three things: (1) the use of capitals, (2) the use of italics, and (3) the styles of section headings. The chaotic condition of many manuscripts in reference to these features is appreciated by editors but not by contributors. The second point deals with citations, which represent usually the worst feature of a manuscript. In citations the *BOTANICAL GAZETTE* follows the general style adopted by international agreement, and any list of "Literature cited" shows the style. The purpose of the style is to give the reader exact and full information in the least space. To recast a list of citations is needless editorial labor, when with a little observation the list can be prepared in proper form by the contributor.

Attention may be called to the fact that legends for text cuts should never be written on the figures, but listed at the end of the paper. The printer and engraver are different persons, and their copy must be kept separate. The insertion of figures in the manuscript simply makes work for the editor. The necessary space for editorial annotations should be

kept in mind; manuscripts should not merely be typewritten (never carbon copies), but they should be double spaced and have liberal margins.

Preparation of illustrations

Illustrations in research papers are often disappointing because the author has failed to recognize difficulties which confront the engraver. The following suggestions have been prepared as a general answer to inquiries, and also in the hope that they may enable contributors to secure more effective reproductions of their drawings and photographs. Ten years ago, nearly all illustrations were in the form of plates, but in recent years the text cut has gained in favor, especially in journals printed upon paper suited to the reproduction of photographs and black-and-white drawings. Whether illustrations are to be text cuts or plates, it is recommended that the copy be about twice as large as the desired reproduction. In the case of text cuts, the available space is $4\frac{1}{8}$ inches in width, and, including the legend, $6\frac{1}{2}$ inches in length. The size recommended for plates is $5 \times 7\frac{1}{2}$ inches, exclusive of the space used by the publisher for the volume number, plate number, and title. These proportions should be maintained, whatever the reduction may be. If the illustrations are to be reduced one-half, the copy for text cuts may be $8\frac{1}{4}$ inches in width, with a maximum length of 13 inches, and plates should be 10×15 inches.

If the separate features of an illustration are to be grouped in a text cut, or are to be arranged in a plate, do this work yourself. Paste the separate figures on a stiff, white cardboard, and paste in the proper places the numbers and any explanatory letters. Suitable numbers and letters for various reductions can be furnished by this office.

The following modes of reproduction have been used by the BOTANICAL GAZETTE: zinc etching, photolithograph, lithograph, heliotype, and half-tone. Of these, only the zinc etching and the half-tone are available for text figures.

Zinc etching.—This type is recommended for graphs, line drawings, and all other black-and-white drawings which do not have extremely fine lines or extremely small dots. For the copy, use smooth, perfectly white paper, preferably Bristol board, and dead black, indelible ink. Lines or dots made after the pen is nearly dry, so that they appear gray in the copy, are sure to disappoint the author. A good example of line drawing, reproduced by zinc etching, at a reduction of one-half, may be found in BOT. GAZ. 42:412. 1906. For an example combining lines and dots, see 56:15. 1913; for a graph, see 54:425. 1912; for a plate, see 35: pl. 7.

1903. For an example of zinc etching, made without reduction, see BOT. GAZ. 61: *pl.* 22. 1916. The contrast between a zinc etching at a one-half reduction and one reproduced without reduction may be seen by comparing figs. 14 and 13 of the plate just mentioned. The originals for the two figures were drawn in the same style, but fig. 14 was reduced one-half and fig. 13 was reproduced without reduction. Such a procedure involved needless expense, since a negative had to be made from fig. 14, reducing it one-half; then a print from this negative had to be pasted in its place among the original drawings. Contributors often send in graphs on co-ordinate paper, ruled in various shades of red, yellow, or blue. The engraver can "screen" out the colored lines so that they do not appear at all, but he cannot reproduce them satisfactorily. Reproduction of such graphs by the half-tone method is very unsatisfactory. If white paper ruled in black is unobtainable, get a ruling pen and do your own ruling. The graph referred to above was made in this way.

Photolithograph.—This mode of reproduction is good for fine lines and fine dots. The paper must be smooth and perfectly white, and the ink must be dead black. The soft effect of a lithograph can be secured by the printer, who can use an ink of lithograph color. Pencil drawings or washes cannot be reproduced by this method. This is strictly a photographic method, and is popular with investigators who can draw, since it cannot be modified like a lithograph. See BOT. GAZ. 42: *pls.* 19-28. 1906.

Lithograph.—This method is expensive and somewhat uncertain, since it involves redrawing by the lithographer. A crude drawing will be improved by this method, but if the investigator can draw better than the lithographer, the reproduction will suffer. No really satisfactory lithographs have been made in this country, and there is great delay, sometimes more than a year, in getting them from abroad.

Heliotype.—This method is good for photomicrographs and general work in black and white, but is rather expensive. In the preparation of copy, different colors should not be used, but various shades of black may be obtained by diluting the ink, so that there may be a range from dead black to pencil color. The ink may be used as a wash. It is better not to combine ink and pencil work in a drawing, for while the copy looks well, the ink and pencil do not behave exactly alike when photographed. If photographs or photomicrographs are to be reproduced, use a glossy paper; even then, a skilful squeegee will improve the copy. Since the reproduction will lose a little in contrast, use a contrastypaper and

developer. With properly prepared copy, it is never necessary to use this method for line drawing or stippled work.

Half-tone.—This method is almost universally used for the reproduction of photographs of landscapes, models, and portraits. It is also used for photomicrographs. With properly prepared copy it is very satisfactory; but it must be remembered that the screen used by the engraver makes black lines through every white portion, and white lines through every black portion, thus reducing the contrast. Consequently, if the copy is only a fine artistic photograph, the reproduction will be flat and lifeless. In making the negative, use a contrasty plate, develop with a contrasty developer, print on a glossy paper, and squeegee the print. Contrast should be so over-emphasized in the copy that the reproduction, rather than the copy itself, shall represent what the author desires. If the figure is to appear as a text cut, $4\frac{1}{8}$ inches in width, it will be much more satisfactory to use a 5×7 copy than a $3\frac{1}{4} \times 4\frac{1}{4}$. An enlargement of the copy by this method, or by any other, is wholly unsatisfactory.

THE STRUCTURE OF THE SPIKELET OF APHANELYTRUM

(WITH ONE FIGURE)

In ENGLER and PRANTL'S *Pflanzenfamilien*¹ HACKEL proposes *Aphanelytrum* as a subgenus of *Brachyelytrum*. He bases the subgenus on a single species from Ecuador, *Brachyelytrum procumbens* Hack., differentiating it from *Eubrachyelytrum* by its glumes, minute, "often wanting," and by its thinner, shorter-awned lemmas. The grass was first listed, without description, as *Aphanelytrum procumbens* Hack. in SODIRO'S enumeration,² based on HACKEL'S identification of his collections of the grasses of Ecuador. Later HACKEL described³ the plant as a new genus, discussed its relationship and the structure of its inflorescence, and gave a figure of the supposed spike with three spikelets.

In 1914, among South American grasses received for identification from the Royal Botanical Garden at Petrograd was a specimen collected by JAMESON (no. 168) in Ecuador, which proved to be referable to *Aphanelytrum*. The peculiar spike of three sessile spikelets, the upper two with glumes obsolete, described by HACKEL, is found to be a single 3-flowered spikelet with very long rachilla joints. In the generic description HACKEL says that the 1-flowered, distichous spikelets are alternate and subterminal along the branches of the subsimple panicle,

¹ Nachträge 2:42. 1897.

² Ann. Univ. Quito Ser. 3:480. 1889.

³ Oesterr. Bot. Zeitschr. 52:12. 1902.